Alfalfa Survey Work Plan
January 1, 2015 – December 31, 2015

Cooperator:	Kansas Department of Agriculture			
State:	Kansas			
Project:	Alfalfa Commodity Survey			
Project funding source:	CAPS Priority Survey ☒ Other Line Item Pest ☐			
Project Coordinator:	Laurinda Ramonda			
Agreement Number	15-8420-1787-CA			
Contact Information:	**Address:**	Plant Protection and Weed Control 6531 SE Forbes Avenue, Suite B, Topeka, Kansas 66619		
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This Work Plan reflects a cooperative relationship between the Kansas Department of Agriculture (KDA) (the Cooperator) and the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Plant Protection and Quarantine (PPQ). It outlines the mission-related goals, objectives, and anticipated accomplishments as well as the approach for conducting a Alfalfa Commodity Survey control program and the related roles and responsibilities of the Kansas Department of Agriculture and USDA-APHIS-PPQ as negotiated.

I) OBJECTIVES AND NEED FOR ASSISTANCE

This detection survey will gather data to determine the status of the silver y moth, old world bollworm, Egyptian cottonworm and cotton cutworm.

In 2012, Kansas had 4.3 million tons of hay produced with production valued at $708 million and ranked 5th in the nation, even with the drought. Part of Kansas' hay production is alfalfa which is ranked 12th in the nation with 1.8 million tons produced at a value of $400 million. This project will help build the state survey and NAPIS data bases for these exotic pests to support exports nationally and internationally.

"Overall, alfalfa export volume surged 14% last year, and alfalfa hay prices in many parts of the western U.S. soared to record or near-record levels", according to the Farm Journal on May 29, 2012. There has also been an increase in dairy numbers in western Kansas.

This project will provide the Kansas Department of Agriculture and USDA-APHIS-PPQ, with information regarding the status of the target pests. This information can be used to determine appropriate response actions if positive finds are confirmed by USDA.

This survey cannot be implemented without the funds provided by USDA-APHIS-PPQ.

II) RESULTS OR BENEFITS EXPECTED

The Cooperator seeks to conduct a program, which is expected to result in:

A. What results or benefits will be derived from the cooperative effort?

- The ability to continue to export Kansas grown alfalfa for the success of the states' forage industry.
- Reduction to the risk of economic hardship to the dairy and forage industry.
- Additional geographic assessment from data gathered.
- Identification of the silver y moth, old world bollworm, Egyptian cottonworm and cotton cutworm, if present.
- Protection to the state of Kansas from the introduction of silver y moth, old world bollworm, Egyptian cottonworm and cotton cutworm.
- Identification of pathways of introduction to limit future infestations.

III) APPROACH

What is the plan of action or approach to the work?

This survey is planned for two years. Thirty-nine sites will be surveyed in counties where the most alfalfa is grown. One site for every 25,000 acres of alfalfa will be surveyed. The counties that are planning to be surveyed are Barton, Dickinson, Finney, Ford, Gray, Haskell, Kearney, Marion, Ottawa, Pawnee, Reno, Rice and Stafford. The survey will be conducted with one temporary/seasonal staff and KDA full time employee when needed. One temporary/seasonal employee will be trained and monitored by the State Survey Entomologist and State Survey Coordinator. Survey activities will occur twice a month at each site during May to July. Traps to be utilized are bucket traps.

Trapping for the Silver Y Moth – *Autographa gamma* will occur from May to July at or within the edge of fields of alfalfa. Plastic bucket traps with a dry kill strip will be utilized with the *Autographa gamma* lure. Kill strips are good for 1 month for 2 strips. Lure is effective for 28 days (1 month). Place trap at least 65 feet away from other traps.

Trapping for the Old World Bollworm – *Helicoverpa armigera* will occur from May to July at or within the edge of fields of alfalfa. Plastic bucket traps with a dry kill strip will be utilized with the *Helicoverpa armigera* lure. Kill strips are good for 1 month for 2 strips. Lure is effective for 28 days (1 month). Place trap at least 65 feet away from other traps.

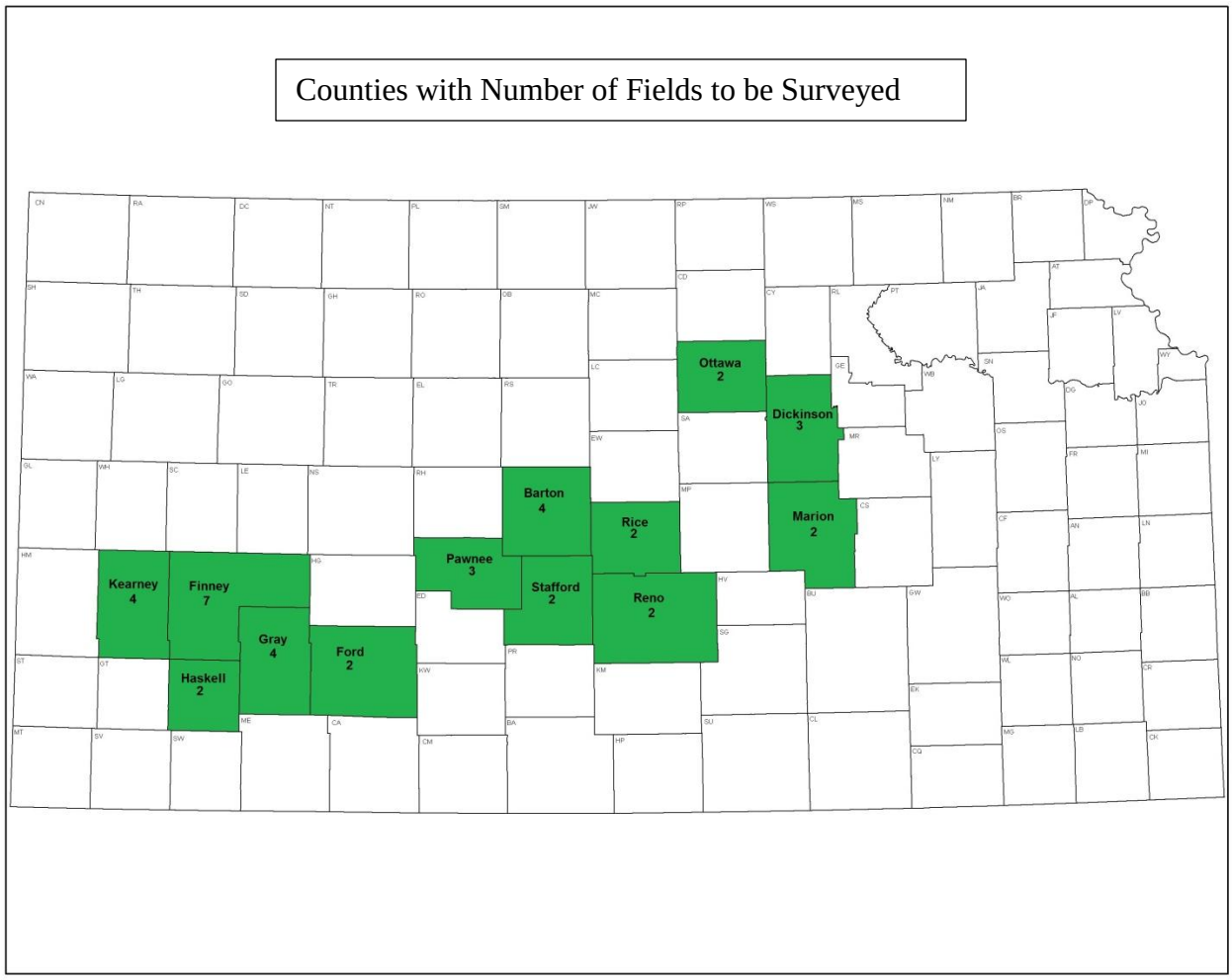
Trapping for the Egyptian Cottonworm – *Spodoptera littoralis* will occur from May to July at or within the edge of fields of alfalfa. Plastic bucket traps with a dry kill strip will be utilized with the *Spodoptera littoralis* lure. Kill strips are good for 1 month for 2 strips. Lure is effective for 84 days (3 months). Place trap at least 65 feet away from other traps.

Trapping for the cotton cutworm – *Spodoptera litura* will occur from May to July at or within the edge of fields of alfalfa. Plastic bucket traps with a dry kill strip will be utilized

with the *Spodoptera litura* lure. Kill strips are good for 1 month for 2 strips. Lure is effective for 84 days (3 months). Place trap at least 65 feet away from other traps.

LOCATION	# of Fields Trapped – 1 field per 25,000 acres*
FINNEY	7
BARTON	4
GRAY	4
PAWNEE	3
KEARNY	4
MARION	2
RICE	2
RENO	2
DICKINSON	3
STAFFORD	2
HASKELL	2
OTTAWA	2
FORD	2
Total Fields	**39**

* Alfalfa hay production average for the last 5 years from National Agriculture Statistics Service (NASS) data.



A. The Cooperator and APHIS mutually agree to:

- Utilize Cooperator and APHIS program funding, as outlined in the Financial Plan, within the authorized parameters to support survey, detection and objectives.
- Maintain a State Cooperative Agriculture Pest Survey committee that will meet at least once a year.
- Work together in carrying out field surveys, trapping and data collections, emphasizing pest and diseases that may pose an immediate risk to the agriculture of the state and United States.
- Have representation at national and/or Regional annual meetings.

1. What is the quantitative projection of accomplishments to be achieved?

a. By activity or function, what are the anticipated accomplishments by month, quarter, or other specified intervals?

- Trapping will occur from May to July.
- Traps checked one-two times a month and lure changed according to protocol.

- Data will be entered into the NAPIS database when pest identification is confirmed and/or becomes available.
- GPS coordinates will be included with surveys.
- Survey and identification of the silver y moth, old world bollworm, Egyptian cottonworm and cotton cutworm.

b. What criteria will be used to evaluate the project? What are the anticipated results and successes?

- Pest detection survey activities completed.
- All data collected from the pest detection survey is entered into the approved database.
- SPHD, SPRO, PSS, SSC meetings to keep updated on issues, if needed.
- Presence or absence of the silver y moth, old world bollworm, Egyptian cottonworm and cotton cutworm.

c. What methodology will be used to determine if:

1. Identified needs are met

- Survey completed within specified timeframe.

2. Results and benefits are achieved

- Review of the USDA approved database to ensure that data from the pest detection activities have been entered.
- Review of the accomplishment reports, supporting outreach materials (if applicable), and maps.
- SPHD, SPRO, PSS, SSC meetings to keep updated on issues.

2. What type of data will be collected and how will it be maintained?

a. Address timelines for collection and recording of data.

All survey data from cooperative agreements involving pest surveys will be entered by the State Survey Coordinator or KDA staff into the NAPIS database.

The data entry requirements are:

- Enter new national, state, and county records into the approved database within 48 hours of confirmation of a pest or pathogen identification by a recognized identifier.
- Non-time sensitive records, including negative data, must by entered into the approved database within 2 weeks of confirmation.
- Negative data will be entered within 2 weeks of decommissioning a trap, obtaining the results from an identifier, or performing a laboratory assay.

- Survey data will be collected with GPS technology for internal pathway analyses. Survey maps will be developed from approved GIS mapping software.

b. How will APHIS be provided access to the data?

- Complete, accurate, and timely pest survey data will be entered into the NAPIS approved database using approved protocol and accessible.
- Semi-annual and annual survey accomplishment reports submitted to ADODR.

B. The Cooperator will:

- Document locations by GPS coordinate.
- Equipment used in this survey will be maintained by cooperator upon completion of project.
- Conduct surveys at alfalfa fields in counties with a five year average of at least 40,000 acres from May 2015 to July 2015.
- Hire one temporary/seasonal staff to set up and monitor traps.
- Supply GPS equipment.
- Provide KDA staff when needed.
- Provide vehicle and fuel for travel for conducting survey and collecting data.
- Provide lodging when needed.

1. By function, what work is to be accomplished?

- Trapping for the silver y moth, old world bollworm, Egyptian cottonworm and cotton cutworm will occur from May to July.
- Survey and trapping will be done with one temporary/seasonal employee and KDA full time staff when needed. Seasonal help will be trained and monitored by the state Entomologist and State Survey Coordinator.
- Data will be entered into the USDA approved database when pest identification is confirmed and/or becomes available.
- GPS coordinates will be included with surveys.
- Suspect specimens will be sent to a qualified identifier.

2. What resources are required to perform the work?

- Qualified identifier for identification (taxonomic support).
- One temporary/seasonal employee to be hired through CAPS survey to conduct survey.
- KDA permanent staff will help when needed for collection and training.
- GPS unit and map for locations.
- Rental vehicle (shortage of state vehicles) and fuel are required to set up and monitor traps.

- Provided by Cooperator, office space with associated services and utilities, computers and other office equipment for the use of Cooperator personnel. These include GPS unit and computer with internet service. Computers will be used for entering survey data into the state survey database and the approved database.

3. What numbers and types of personnel will be needed and what will they be doing?

- One temporary/seasonal and permanent KDA staff, if needed, will be setting and checking traps.
- Data acquired will be entered into the NAPIS database by the State Survey Coordinator or KDA staff.
- KDA staff will help when needed for collection and/or sorting and training.
- Qualified identifier for specimen identification (APHIS Identifier).

4. What equipment will be needed to perform the work?

Include major items of equipment with a value of $5,000 or more.

a. What equipment will be provided by the cooperator?

- Computers for data entry, documentation, and analysis
- Microscopes and similar lab equipment

b. What equipment will be provided by APHIS? N/A

c. What equipment will be purchased in whole or in part with APHIS funds? N/A

d. How will the equipment be used?

- Data entry, documentation, and analysis
- Screening of pests

e. What is the proposed method of disposition of the equipment upon termination of the agreement/project? N/A

5. Identify information technology equipment, e.g., computers, and their ancillary components?

Provided by KDA, office space with associated services and utilities, computers and other office equipment for the use of Cooperator personnel. These include GPS unit and computer with internet service.

6. What supplies will be needed to perform the work?

- Traps
- Lure
- Kill strips
- Hand lenses

- Insect repellant
- Ziploc bags
- Specimen collection jars
- Shipping boxes
- Insect pins
- Alcohol
- Alcohol proof pens
- Fuel for rental vehicle
- GPS unit
- Comparison specimens for silver y moth, old world bollworm, Egyptian cottonworm and cotton cutworm, if available.

a. What supplies will be provided by the Cooperator?

- Some traps
- GPS units
- Hand lenses
- GPS unit

b. What supplies will be provided by APHIS?

- Traps
- Lure
- Insect kill strips

c. What supplies will be purchased in whole or in part with APHIS funds?

- Supplies for the collection of specimens (insect repellant, Ziploc bags, specimen collection jars, alcohol, alcohol proof pens, insect pins, shipping boxes).
- Fuel for rental vehicle

d. How will the supplies be used?

- Planning, implementation, data collection and data submission of survey.
- Pest detection survey work.
- Shipping of specimens to identifiers or labs.

e. What is the proposed method of disposition of the supplies with a cumulative value over $5,000 upon termination of the agreement/project?

- There should not be any.

7. What procurement will be made in support of the funded project and what is the method of procurement (e.g., lease, purchase?)

- Supplies used for survey work.
- The Fiscal Department at the Kansas Department of Agriculture will provide most contracts.
- Seasonal employee will be employed by a temporary employment service that has a contract with the state.
- Most procurements will be made by purchase order.
- Some procurements will be made reimbursable personal expense.

8. What are the travel needs for the project?

a. Is there any local travel for the project and who is the approving official and methods of payment? (Indicate rates and total costs in the financial plan).

- Travel will be required to survey sites by use of a KDA or rental vehicle (shortage of state vehicles).
- Overnight stays by seasonal staff will occur because of the distance of some of the survey work, approximately 2 nights a week.
- Most procurements will be made by purchase order.
- Some procurements will be by reimbursable personal expense.
- The KDA Plant Protection and Weed Control Plant Program Manager is the approving official.
- Costs are included in the financial plan.

b. What extended or overnight travel will be performed (number of trips, their purpose, and approximate dates?). Who is the approving official and methods of payment? (Indicate rates and total costs in the financial plan)

- Overnight stays four times a month by seasonal staff. This travel will occur because of the distance of survey work, approximately 2 nights a week.
- The KDA Plant Protection and Weed Control Plant Program Manager is the approving official.
- Costs are included in the financial plan.

c. What is the method of payment? (Indicate rates and total cost in the financial plan)

- Purchase order.
- Reimbursable personal expense.
- Costs are included in financial plan.

9. Reports

a. Submit all reports to the APHIS Authorized Department Officer's Designated Representative (ADODR). Reports include:

1. Narrative accomplishment reports in the frequency and time frame specified in the Notice of Award, Article 4.

2. Federal Financial Reports, SF-425 (replaces SF-269 October 1, 2009) in the frequency and time frame specified in the Notice of Award, Article 4.

10. Are there any other contributing parties who will be working on the project?

a. List Participating Agency/Institution:

- KDA
- USDA-APHIS-PPQ

b. List all who will work on the project:

- KDA
- USDA-APHIS-PPQ

c. Describe the nature of their effort:

- KDA – survey work
- USDA-APHIS-PPQ – funding, support and pest identification

d. Contribution:

- KDA – survey work, specimen screening
- USDA-APHIS-PPQ – identification of pests

C. APHIS Will:

1. Outline the Agency's (USDA APHIS PPQ) substantial involvement.

a. Include any significant Agency collaboration and participation

- Provide any new information that becomes available on pests of concern.
- Provide outreach materials for silver y moth, old world bollworm, Egyptian cottonworm and cotton cutworm, if available.
- Provide traps, lure and kill strips.
- Provide replacement traps and replacement lure.
- Provide funds to the Cooperator to cover costs outlined in the Financial Plan.
- Make arrangements for Taxonomic support in identification and sorting.

b. Project oversight and performance management

- Review of data results submitted to USDA approved database.
- Review data and submit accomplishment reports to ADODR.
- Provide training, when necessary.

2. **What equipment will be needed to perform the work?** Include major items of equipment with a value of $5,000 or more.

   a. **Will Equipment be loaned or provided by APHIS? ☐Yes ☒No (If Yes, please list:**

   b. **How will the equipment be used?** N/A

IV) GEOGRAPHIC LOCATION OF PROJECT

A. Is the project statewide or in specific counties, townships, and/or national or state parks? (list the names of all counties, townships, and/or national or state parks, and tribal areas that apply)
Conduct surveys at alfalfa fields in counties where a five year acreage average is at least 40,000 acres. Possible counties: Barton, Dickinson, Finney, Ford, Gray, Haskell, Kearny, Marion, Ottawa, Pawnee, Reno, Rice and Stafford.

B. What type of terrain (e.g., cropland, rangeland, woodland) will be involved in the project?
The type of terrain will be mainly cropland.

C. Are there any unusual features which may have an impact on the project or activity such as rivers, lakes, wild life sanctuaries, commercial beekeepers etc? (list all that apply)
There could be many unusual features which may have an impact on the project or activity such as rivers, lakes, forests and wildlife sanctuaries. Areas might have disruption through human contact and dust, dirt and debris. Also rattlesnakes and wildlife could have an impact on where to survey.

D. Identify the kind of data to be collected:
The kinds of data to be collected will include, but not limited to, observation number, observation date, data source, state/county, site code, EPA pest code, pest status and survey method.

E. Establish criteria to evaluate the results and successes of the project:

1. **Results:**

   - Pest detection survey activities for the project completed.
   - All data collected from the pest detection survey is entered into the approved database.
   - Maps of the pest detection survey activities are produced to aid in planning of future pest detection surveys, pathway risk analysis, and outreach activities.
   - State CAPS and KDA meetings to keep updated on issues.

2. **Successes:**

- Presence or absence of pests.
- Identification of high risk areas for alfalfa pests.
- Increased knowledge of resource locations.

F. Methodology used to determine if the results and benefits are achieved:

1. Identified needs are met:

- Survey completed in timeframe specified.

2. Results and benefits are achieved:

- Review of the NAPIS database to ensure that data from the pest detection activities have been entered.
- Review the accomplishment reports, supporting outreach materials (if applicable), and maps.
- State CAPS and KDA meetings to keep updated on issues.

V) DATA COLLECTION AND MAINTENANCE

All survey data from cooperative agreements involving pest surveys will be entered by the State Survey Coordinator or KDA staff into the APHIS approved database using approved protocol.

VI) TAXONOMIC SUPPORT

A. Person or Institution that will screen targets (Name & Contact Information)

State Entomologist
Kansas Department of Agriculture
Plant Protection and Weed Control
6531 SE Forbes Avenue, Suite B
Topeka, Kansas 66619
(785) 564-6698

OR

B. ☒ Request for taxonomic support.

Eric La Gasa
WA State Dept. of Agriculture
Plant Protection Division
1111 Washington St. SE
Olympia, WA 98504-2283
360-902-2063

ELaGasa@agr.wa.gov

VII) SIGNATURES

ROAR **Date**	**ADODR** **Date**

Detailed Financial Plan

PROJECT: Alfalfa Commodity Survey
COOPERATOR NAME: Kansas Department of Agriculture
AGREEMENT NUMBER: 15-8420-1787-CA
TIME PERIOD: January 1, 2015-December 31, 2015

Financial Plan must match the SF-424A, Section B, Budget Categories

ITEM			APHIS FUNDS	COOPERATOR FUNDS (Show even if zero)	TOTAL
PERSONNEL:	**Hours**	**Salary**			
KDA staff - Paid by Cooperator funds	65	$25		$1,625	$1,625
Subtotal			**$0**	**$1,625**	**$1,625**
FRINGE BENEFITS:	**Percent** (enter as decimal not %)				
KDA staff - Paid by Cooperator funds - 25%	0.25			$406	$406
Subtotal			**$0**	**$406**	**$406**
TRAVEL:	**Cost**	**Length of time**			
Lodging 20 nights @ $85/night	$85	20	$1,700		$1,700
Meals for overnight travel @ $40 x 40 days	$46	40	$1,840		$1,840
SUV rental for temporary staff for 2.5 months @ 979/month**	$979	2.5	$2,448		$2,448
Vehicle rental KDA staff 2 days**	$44.50	2	$89		$89
Subtotal			**$6,077**	**$0**	**$6,077**
EQUIPMENT:	**Cost**				
			$0		$0
Subtotal			**$0**	**$0**	**$0**
SUPPLIES:	**Cost**	**Length of time**			
Alcohol, alcohol proof pens, Ziploc bags, insect repellent, poison ivy wash, collection jars, etc.	$203		$203		$203
Traps (provided by USDA)	$0		$0		$0
Lure and Kill Strips (provided by USDA)	$0		$0		$0
Fuel - 2,667 miles/month x	$500	2.5	$1,250		$1,250

$3.75 per gallon/20 mpg x 2.5 months- for rental vehicles**					
Fuel for KDA staff for 2 days**	$85	2	$170		$170
Subtotal			**$1,623**	**$0**	**$1,623**
CONTRACTUAL:	**Cost**	**Length of time**			
Key Staffing (1 temporary staff) $20.00 x 433 hours (extra hours needed for survey prep and cleanup at survey end)	$20	433	$8,660		$8,660
Subtotal			**$8,660**	**$0**	**$8,660**
OTHER:	**Cost**				
Shipping samples to identifier	$100		$100	$0	$100
Subtotal			**$100**	**$0**	**$100**
TOTAL DIRECT COSTS			**$16,460**	**$2,031**	**$18,491**
INDIRECT COSTS	**Percent** (enter as decimal not %)				
(19.7% on Total Direct Cost of salary and fringe benefits)*	0.197		**$0**	**$400**	**$400**
TOTAL			**$16,460**	**$2,431**	**$18,891**
COST SHARE INFORMATION (Percent)			**87%**	**13%**	

***** Kansas' Negotiated Cost Rate (Salary + Fringe Benefits x %=Indirect Cost)

****** There is a shortage of state vehicles. We give the option of renting a vehicle or using personally owned vehicles. If renting we pay for the fuel and if a personal vehicle is used we pay mileage.